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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,377	07/01/2003	Mark Edward Kane	3805-016-27 CIP	1196

7590 05/23/2005  
Supervisor, Patent Prosecution Services  
PIPER RUDNICK LLP  
1200 Nineteenth Street, N.W.  
Washington, DC 20036-2412

EXAMINER
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NGUYEN, CUONG H

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/609,377	<b>Applicant(s)</b> KANE ET AL.	
	<b>Examiner</b> CUONG H. NGUYEN	<b>Art Unit</b> 3661	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

*HC*

### DETAILED ACTION

1. This Office Action is the answer to the telephonic communication of Mr. Jim Heintz on 3/10/05. The applicants request a new Office Action clarifying a motivation for combination of references to reject claim 8 because Figs. 4(a) & 4(b) required a different interpretation than a rationale provided on 2/10/05.)

2. Claims 1-24 are pending in this application.

#### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 22 provides for the use of “a corrected wheel sensor signal” in the preamble. This claim is indefinite where it merely recites a use without any limitation how to obtain this specific signal – Claim 22 is directed to supplying a corrected wheel sensor signal; however, line 6 of this claim use this as an already available item “generating a corrected wheel sensor signal...”.

4. Claim 24 is directed to a method comprising steps; however, main elements to make that claim’s structure comprises physical components.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

*(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

5. **Claims 22-23 are rejected under 35 U.S.C. § 102(b) as being anticipate by Kumar et al. (US Pat. 6,148,269).**

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A. As per independent claim 22:

Kumar et al. sufficiently teach a method for supplying a corrected wheel sensor signal comprising:

- determining a speed of a train (see Kumar et al., the abstract);
- determining a parameter of a signal that would be output by a wheel sensor (this limitation is merely outputting a signal from a sensor - Kumar et al. teach the use of a total number of wheel revolutions in calculations (see Kumar et al., the abstract, and claim 1 – e.g., sensing a tachometer).
- generating a corrected wheel sensor signal having above parameter for an intent of use.

B. As for dependent claim 23:

The rationale and references for above rejection of claim 22 are incorporated.

- determining a speed of a train (from an odometer signal, or from a GPS with calculated a traveled distance and a traveled time – see Kumar et al., 2:26-34);

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

6. **Claims 1-21, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar et al. (US Pat. 6,148,269), in view of Matsuno et al. (US Pat. 6,219,609), and in view of Bidaud (US Pat. 6,347,265).**

Since claim 8 is the most sophisticated claim (containing many limitations of above claims), it is carefully analyzed herein, other listed claims are rejected for the same rationales

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and cited references because they merely contain broader limitations, or having lesser limitations covered in that most detailed claim 8.

A. As for independent claim 8: Kumar et al. suggest a method for determining a size of a wheel on a train comprising the steps of:

- Bidaud clearly show a need for determining a fundamental parameter in vehicle movement: distance traveled during a period of time (see Bidaud, the abstract, and claims 1, 10);

Kumar et al. do not disclose about adding segments of distance together to obtain a total travel distance; however, the examiner respectfully submits that it is a fundamental calculation (merely add together) to obtain a total travel distance of a vehicle using in many calculations.

Kumar et al. teach the use of a total number of wheel revolutions in calculations (see Kumar et al., the abstract, and claim 1 – e.g., sensing a tachometer).

Kumar et al. do not disclose about utilizing GPS in travel-segment calculations; however, Matsuno et al. use GPS technology to obtain accurate positions and wheel speeds of a train via sensors.110a.

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Kumar et al., Bidaud, and Matsuno et al., to suggest the use of GPS, and a traveled distance to calculate a train wheel size because they already teach how to obtain required parameters using in fundamental movement calculations to obtain a wheel size for a benefit of improving accuracy in calculations of movement parameters.

B. As for independent claims 1, 15-16, and 21-22:

They are rejected for the same rationales and cited references as independent claim 8 because they merely contain broader limitations, or having lesser limitations covered in that most

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detailed claim 8. Claim 16 merely contains repetitions of: inputting, obtaining, and determining steps from pending claim 15; therefore, an obvious rejection is applied.

C. As for dependent claims 2,9:

The rationale and references for above rejection of claim 8 are incorporated.

The examiner respectfully submits that it is clearly obvious with above references a determining step is performed successively with no separation between each period (e.g., a continuously distance).

D. As for dependent claims 3,10:

The rationale and references for above rejection of claim 8 are incorporated.

The examiner respectfully submits that it is clearly obvious with above references a determining step is performed successively with separations between each period (i.e., similar in claim 8's situations).

E. As for dependent claims 4, 11:

The rationale and references for above rejection of claim 8 are incorporated.

The examiner respectfully submits cited prior art suggest that a positioning system is a global positioning system (Matsuno et al. use GPS technology to obtain accurate positions and wheel speeds of a train via sensors 110a).

F. As for dependent claims 5, 12:

The rationale and references for above rejection of claim 8 are incorporated.

The examiner respectfully submits that it is clearly obvious with above references a determining step is performed successively with no separation between each period (e.g., a continuously distance – for an average calculation, not counting any grade threshold in a

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section; in other words, a determining step is performed in “ordinary situation” without exceeding any grade threshold for that calculating section).

G. As for dependent claims 6, 13:

The rationale and references for above rejection of claim 8 are incorporated.

The examiner respectfully submits that it is obvious with above references that a determining step is performed with known grades from a track database, in another word, those known elevations/grades would be used in calculations for practical and accurate results.

H. As for dependent claims 7, 14:

The rationale and references for above rejection of claim 8 are incorporated.

The examiner respectfully submits that it is clearly obvious with above references that a period is one second (sufficiently in a continuous situation).

I. As for dependent claims 17-20:

The rationale and references for above rejection of claim 8 are incorporated.

The examiner respectfully submits that Bidaud obviously uses a tachometer for sensing rotational speed because it is fundamental that “tachometer” is an instrument that indicates the speed, usually in revolutions per minute, at which an engine shaft is rotating (e.g., see Bidaud 3:30-32). Some tachometers, especially those used in automobiles, are similar in construction and operation to automotive speedometers. Other types, often connected directly to the shaft whose speed they indicate, are small electric generators whose output voltage is proportional to speed. This voltage is applied to a voltmeter whose dial is calibrated in speed units. Another type, used only with engines having an ignition system, operates by counting the pulsations of

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current or voltage in the ignition system, the number of these being proportional to the speed of the shaft.

- determining and supplying a parameter of a signal that would be output by a wheel sensor (e.g., outputting a signal already taking into account a coefficient factor from a rotation sensor – the examiner respectfully submits that claim 8's rationales show that Kumar et al. teaches limitation of claim 23-24).

J. As for dependent claim 24:

The rationale and references for above rejection of claim 22 are incorporated.

As best interpreted, "method" claim 24 also comprises selective limitations of claims 1 and 15; therefore, similar rationale and references are applied again as set forth for a rejection on obviousness.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CUONG H. NGUYEN whose telephone number is 571-272-6759. The examiner can normally be reached on 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THOMAS G. BLACK can be reached on 571-272-6956. The Rightfax number for the organization where this application is assigned is 571-273-6759.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Cuong H. Nguyen*

*CHN*

CUONG H. NGUYEN  
Primary Examiner  
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